

0 3

Fig.3

C-GALF2 (G.994.1)	C-FLAG2 (G.994.1)			R-GALF2 (G.994.1)	R-FLAG2 (G.994.1)
C-Ql	JIET2			R-QUIET2	
If R-ACK2	If R-ACK1 C-PILOT1A				
C-PILOT1	C-QUIET3A				
	tion distance ng signal			communicati detectin	
C-RE\	/ERB1				
C-PI	LOT2			R-RE\	/ERB1
C-E	ECT	•			
C-RE\	/ERB2			P.OI	UFT2
	n C-PILOT3 n C-QUIET5			N-QU	JIET3
C-RE\	/ERB3			R-E	CT
C-SE	GUE1			R-REV	/ERB2
	1/C-CRC1 /C-CRC2			R-SE	GUE1
				R-REV	/ERB3
C-ME	DLEY	• •		R-SE	GUE2
			:	R-RATES	1/R-CRC1 /R-CRC2
				R-MEI	DLEY
			,		

Fig.4a

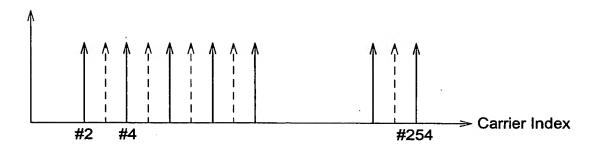


Fig.4b

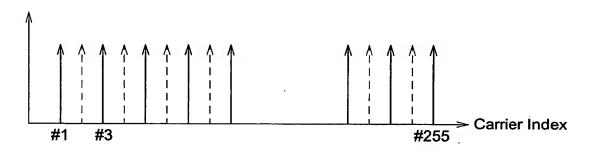


Fig.5a

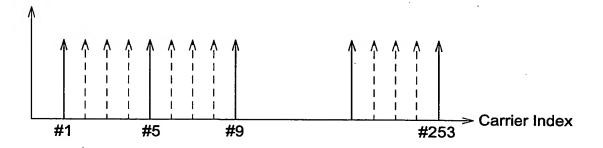


Fig.5b

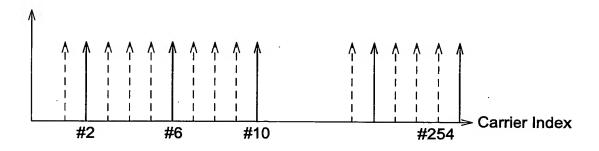


Fig.6

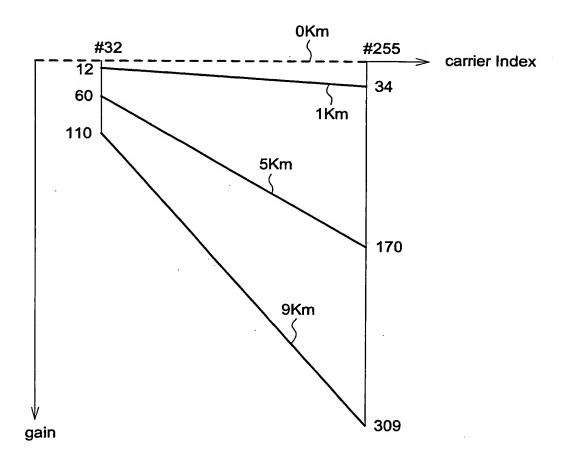


Fig.7

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distance		Carri	Carrier Index N (frequency=4.3125KHz × N)	frequency=	4.3125KHz	(N×	
	6	17	25	32	64	128	255
1Km	-8.89dB	-10.3dB	-11.4dB	-12.2dB	-16.0dB	-22.9dB	-34.3dB
5Km	-44.5dB	-51.6dB	-56.8dB	-61.1dB	-80.2dB	-61.1dB -80.2dB -114.6dB -171.4dB	-171.4dB
9Km	-80.0dB	-92.9dB	-102.3dB -110.1dB -144.4dB -206.3dB -308.6dB	-110.1dB	-144.4dB	-206.3dB	-308.6dB

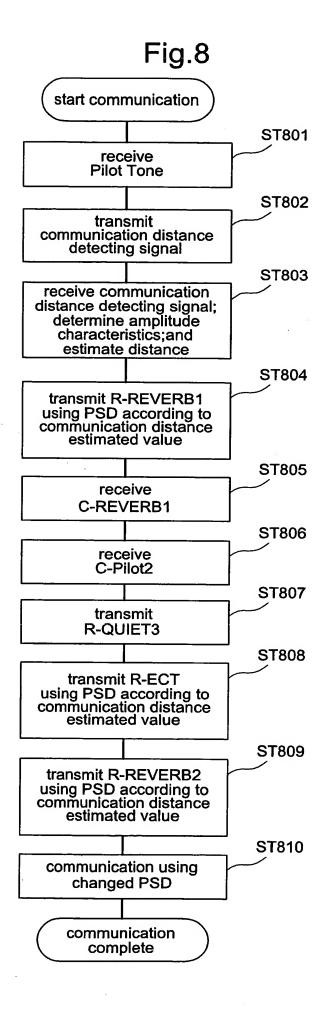


Fig.9

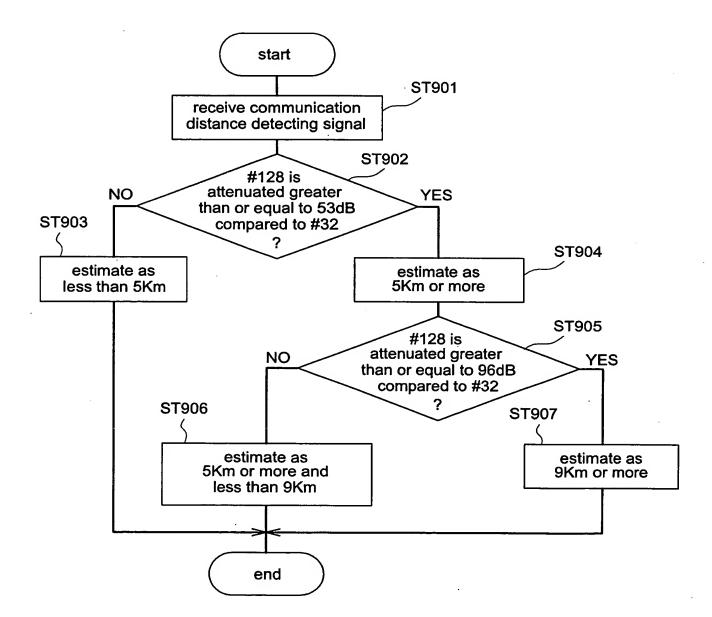


Fig.10 start communication ST1001 transmit Pilot Tone ST1002 receive communication distance detecting signal; determine amplitude characteristics; and estimate distance ST1003 transmit communication distance detecting signal ST1004 receive R-REVERB1 ST1005 transmit C-REVERB1 using PSD according to communication distance estimated value ST1006 transmit C-Pilot2 ST1007 receive R-QUIET3 ST1008 transmit C-ECT using PSD according to communication distance estimated value ST1009 transmit C-REVERB2 using PSD according to communication distance estimated value ST1010 communication using changed PSD communication complete

. . .

Fig.11

 $\frac{-c}{u} = \frac{\hat{v} - \hat{n}}{v} = \frac{1}{v}$

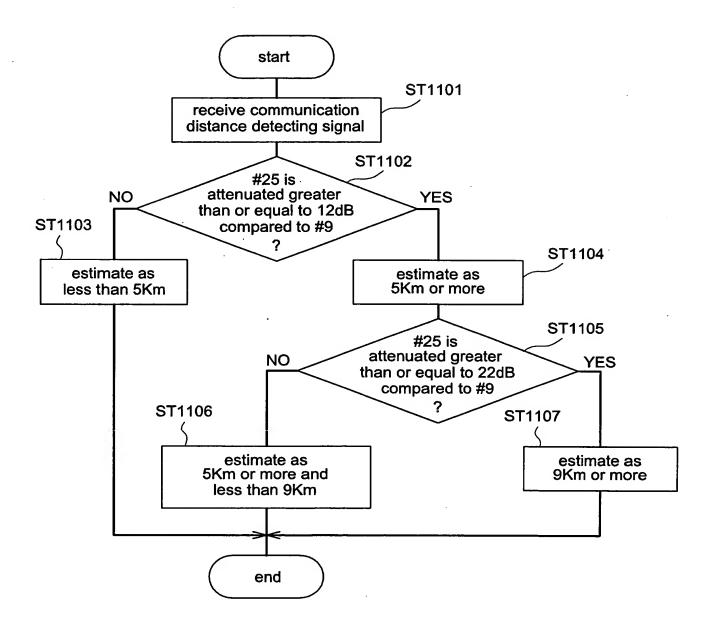


Fig.12

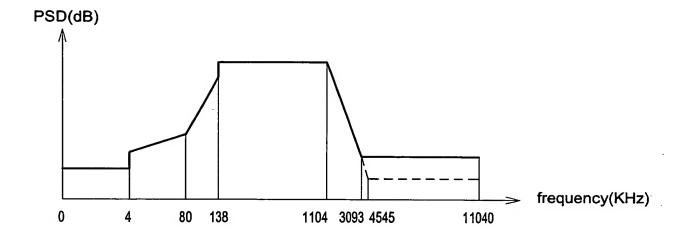


Fig.13

